

REMARKS

Applicants thank the Examiner for withdrawing the prior rejections of claims 1-5 in view of the Cox article.

In the Office Action, the Examiner rejected claims 1 and 3-5 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,848,155 to Cox (hereinafter "Cox"). Claim 2 was rejected under 35 U.S.C. § 103 as allegedly unpatentable over Cox. Applicants respectfully request reconsideration of the rejections of record.

Rejections under 35 U.S.C. § 102(b) for alleged lack of novelty

Claim 1 was rejected under 35 U.S.C. § 102 as allegedly anticipated by Cox. Applicant respectfully traverses this rejection.

Independent claim 1 is directed to a method for including a watermark in a digital image, comprising the steps of, *inter alia*,:

determining a transformed representation of the watermark for optimized visibility of the watermark in the image;

Dependent claims 2-5 all depend from, and include the limitations of, claim 1.

Cox is directed to a watermark which is embedded into audio/video/image/multimedia data using spread spectrum methodology. (*See Cox, Abstract*). The Examiner refers to Fig. 6 of Cox as allegedly disclosing all the limitations of claim 1. However, as evidenced by the discussion of Fig. 6 (Cox, col. 4, line 23), Cox fails to disclose or suggest at least several limitations recited in claim 1.

First, Cox is directed to a completely different purpose than the claims of the present invention. Indeed, Cox is intended to overcome limitations of the prior art systems by using spread spectrum technology to embed watermark data or information

into predetermined locations in an image. (Cox, col. 2, lines 22-26). More specifically, Cox provides a system for extracting a watermark from watermarked data without using an original or unwatermarked version of the data. (Cox, col. 2, lines 27-29). This is entirely distinct from the purpose and scope of the claimed invention, which is to include a watermark in images after they are transmitted as transformed by DCT for compression – including the goals of generating a watermark for optimal visibility based on the original data and superposing the generated watermark on the original image data. (Specification, p. 2, lines 3-10). The claims of the present invention are directed to an entirely different purpose than the disclosure of Cox, and are intended to address a particular shortcoming in the current state of the art.

Furthermore, Cox fails to disclose or suggest at least the claimed limitation of “determining a transformed representation of the watermark for optimized visibility of the watermark in the image.” The Examiner refers to Fig. 6, items 60-66 as teaching this element, stating that these items are “a transform representation of the watermark as claimed.” (See Office Action, p. 2). As noted in the specification of the present application, this claimed feature relates to one of the objects of the invention, i.e., to keep a watermark sufficiently visible throughout a video sequence, wherein the image changes from frame to frame. (Specification, p. 3, lines 13-21). Cox, and in particular Fig. 6, is devoid of any such discussion. Accordingly, because Cox fails to disclose or suggest at least this feature, Applicants respectfully submit that claims 1 and 3-5 are in condition for allowance.

Moreover, Applicants note that Ingemar J. Cox, the named inventor of the Cox reference, is also the author of a book on digital watermarking: Ingemar J. Cox, Matthew NY02:468994.1

L. Miller, and Jeffrey A. Bloom, Digital Watermarking, Morgan Kaufman Publishers, 2002 (ISBN # 1-55860-714-5) (hereinafter, "the Cox Publication"), a comprehensive book surveying the digital watermarking field which enjoys wide recognition in that field. The Cox Publication defines "visible watermark," the subject of the present application, as:

"a visible mark placed over the content of an image or video. Usually, the mark has the properties that it is difficult to remove and is partially transparent. *We do not discuss visible watermark in this book.*" (emphasis added).

Cox et al., Digital Watermarking, p. 500. The Cox Publication also cites his U.S. Patent 5,848,155, the reference of record cited as prior art by the Examiner in this application.

This cited portion of the Cox Publication illustrates the clear difference between the subject of digital (i.e., invisible) watermarks treated in Cox's work, and visible watermarks, which are the subject of the present invention.

For at least this additional reason, Applicants assert that the claims of the present application are novel over the disclosure of Cox.

Rejections under 35 U.S.C. § 103(a) for alleged obviousness

Claim 2 was rejected under 35 U.S.C. § 103 as allegedly unpatentable over Cox. Applicant respectfully traverses this rejection.

As noted by the Examiner, Cox fails to explicitly disclose that the transformed representation of the image is a compressed representation as claimed in claim 2. (*See* Office Action, p.3). In accordance with the comments above, Applicants submit that Cox fails to disclose or suggest one or more additional limitations of claim 2, e.g., through

dependency from claim 1, "determining a transformed representation of the watermark for optimized visibility of the watermark in the image." Accordingly, Applicants respectfully submit that claim 2 is in condition for allowance.

CONCLUSION

In view of the foregoing amendment and remarks, favorable reconsideration and allowance of claims 1-5 are respectfully solicited. In the event that the application is not deemed in condition for allowance, the examiner is invited to contact the undersigned in an effort to advance the prosecution of this application.

Respectfully submitted,



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